

Odermann does not disclose, teach or suggest a sewing apparatus including "a control device for electrically controlling the carrier," as recited in independent claim 1. Further, Odermann does not disclose, teach or suggest a thread cassette including "a portion that actuates the control device, thereby causing the control device to electrically control the carrier; and a portion that is engaged by the carrier," as recited in independent claim 24.

Odermann teaches a thread cassette 32 manually attached to a cover 34 that is released by a spring 82. See Figs. 1 and 4. When a cover release button 44 is depressed, the cover 34 is rotated forwardly by a pressure of a release spring 82 against the cassette 32. See col. 5, lines 1-7. After removing the unwanted thread cassette 32, a new thread cassette may be installed by placing the new cassette within a cassette accommodating chamber 70 of the cover 34. See col. 4, lines 37-42. The cover 34 may then be rotated upwardly to engage a latch member 40 to hold the cover 34 in a closed position. See col. 4, lines 47-50. However, the cover 34 is hingedly fastened to a front of a bracket arm 14 by a set of pins 36 and a pair of brackets 38. See Figs. 3, 4 and 6, and col. 2, line 61-65.

Although manipulation of the cover release button 44 actuates the latch member 40 to allow the cover 34 to open and to maintain a closed position, the thread cassette 32 itself does not manipulate either the release button 44 or the latch member 40. Further, protrusion on the bracket arm 14, the pins 36, and the brackets 38 control actual movement of the cover 34, not the latch member 40.

In the sewing apparatus and the thread cassette of claims 1 and 24, respectively, a thread cassette itself may be attached to a sewing machine body. The thread cassette may be electrically drive from an attachment start position to an attachment finish position. As discussed above, the thread cassette 32 in Odermann is not electrically driven from an open cover 32 position to a closed cover 32 position. Because Odermann does not teach or suggest a control device for electrically controlling the carrier and a thread cassette 32 portion that

actuates a control device to electrically control the thread cassette 32 or the cover 34, Odermann does not teach or suggest the sewing apparatus and thread cassette of claims 1 and 24, respectively.

Regarding claim 24, the Office Action asserts that Odermann anticipates because the cassette it disclose "has the capability, upon being moved by a human operator, to actuate a control device that electrically controls a carrier." This analysis is flawed, at least because claim 24 claims not merely the "capability" of actuating a control device, but rather claims that the contact portion of the cassette actually "actuates" the control device, and causes the control device to perform its function. "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494 496 (CCPA 1970). Because the claim recites a structure that actually performs a function, the Examiner may not ignore the function.

Furthermore, although the cassette per se is what is being claimed by claim 24, the preamble limits the structure, and as such must be considered in determining patentability. See MPEP §2111.02, especially the part entitled "PREAMBLE STATEMENTS LIMITING STRUCTURE."

The Office Action asserts that Cook remedies the deficiencies of Odermann with respect to claim 1. Specifically, the Office Action asserts that Cook teaches a solenoid 524 that electrically moves a control device 525 after pushing a button 150 (Fig. 5). The Office Action further asserts that it would have been obvious to provide the solenoid 524 of Cook to electrically move the control device of Odermann after a pushing a button 44 to exert less force and ensure proper movement of the control device 40. Notwithstanding these assertions, Cook does not teach or suggest a control device for electrically controlling a carrier.

Cook teaches, in Figs. 1, 2B and 3B, an individual cam follower unit 51 that cooperates with a top pattern cam 50 to transmit motion to a wobble plate 29 to influence an amplitude of zigzag stitching by movement of a needle 18. See col. 2, lines 14-20 and line 56 - col. 3, line 6. Cook teaches that the follower unit 51 includes a solenoid 524 including an armature rod 525 that is retracted into a locking aperture 521 of a locking arm 520. See col. 3, lines 13-17 and 24-30.

Because Cook does not mention a thread cassette, a carrier for carrying a thread cassette, a control device for electrically controlling a carrier, or any structure for providing a thread cassette, Cook does not remedy the deficiencies of Odermann discussed above. Further, neither Odermann nor Cook teaches or suggests any structure indicating how a thread cassette or a cover holding such a thread cassette would be driven by a solenoid. Therefore, Odermann and Cook do not, alone or in permissible combination, teach or suggest the sewing apparatus of claim 1.

Additionally, the alleged motivation to combine the references is strained, at best. First, there is no evidence that the proposed modification would result in the button 44 requiring less force to operate, and it is not even clear that this would be an advantage. For example, if the button 44 required less force to operate, it would be more subject to accidental operation, which would be a clear disadvantage. Second, there is no evidence that "improper movement" of element 44 is even remotely an issue. Third, the proposed modification would involve a complex electrical and mechanical re-design of the apparatus, all for the sake of replacing a simple spring-loaded button-and-catch mechanism that clearly functions just fine as-is. In view of these facts, it is simply unreasonable to conclude that one of ordinary skill in the art would have been motivated to make the proposed modification.

For at least the reasons discussed above, claim 24 is patentable over Odermann. Also, claim 1 would not have been rendered obvious by Odermann and Cook, alone or in


permissible combination, for at least the reasons set forth above. Claims 2-23 depend from claim 1, and thus also would not have been rendered obvious by Odermann and Cook, alone or in permissible combination, for at least the reasons set forth above, as well as for the additional features they recite. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-24, in addition to allowed claim 25, are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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